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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,505	09/03/2004	Yoshihiro Hori	70456-056	2825
7590 05/02/5098 Gene Z Rubinson McDermott Will & Emery 600 13th Street N W Washington, DC 20005-3096			EXAMINER	
			LAFORGIA, CHRISTIAN A	
			ART UNIT	PAPER NUMBER
0 /			2139	
			MAIL DATE	DELIVERY MODE
			05/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Application No. Applicant(s) 10/506,505 HORI ET AL. Office Action Summary Examiner Art Unit Christian LaForgia 2139 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 11 February 2008. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-16 is/are pending in the application. 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration. 5) Claim(s) \_\_\_\_\_ is/are allowed. 6) Claim(s) 1-9.11-14 and 16 is/are rejected. 7) Claim(s) 10 and 15 is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on 03 September 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some \* c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). \* See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. Notice of Draftsperson's Patent Drawing Review (PTO-948)

Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date \_\_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other:

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#### DETAILED ACTION

1. The amendment of 11 February 2008 has been noted and made of record.

Claims 1-16 have been presented for examination.

3. Claims 10 and 15 have been objected to as being allowable.

#### Response to Arguments

- 4. Applicant's arguments filed 11 February 2008 have been fully considered but they are not persuasive. The Applicant argues on page 10 that the prior art does not teach an identification code identifying said classified data to be input/output and a first status information means representing a state of storage of said classified data to be input/output in said first storage portion. The Examiner disagrees.
- 5. With respect to the Applicant's arguments regarding the limitation an identification code identifying said classified data to be input/output, the Examiner draws from the section cited in the previous Office Action, namely column 14, lines 62-65. This section states that "the attribute data 38 includes the file name, a file type to identify...the content of the data..." Since Omata provides a teaching of the attribute data containing information used to identify the data, the limitation an identification code identifying said classified data to be input/output has been met and the rejection is maintained.
- 6. Regarding the Applicant's arguments regarding the limitation a first status information means representing a state of storage of said classified data to be input/output in said first storage portion, the Examiner refers to the section cited in the previous Office Action, specifically, column 14, lines 59-61. Omata states "the attribute control part 6 updates the attribute data 38, when the user modifies the status of the data." Since the prior art references discloses

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maintaining state data with the attribute data, the limitation a first status information means representing a state of storage of said classified data to be input/output in said first storage portion has been taught and the rejection is maintained.

See further rejections set forth below.

### Claim Rejections - 35 USC § 102

- The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- Claims 1-4, 11, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.
   Patent No. 6,477,530 B1 to Omata et al., hereinafter Omata.
- 10. As per claim 1, Omata teaches a data storage device performing input/output of classified data in accordance with predetermined input/output procedures for protection of said classified data, and storing said classified data, comprising:

an interface portion externally exchanging data (Figures 1 [block 14, 37], column 1, line 65, column 2, lines 1-2, i.e. data input/output units);

a first storage portion (Figures 1 [blocks 12, 13]) storing said classified data (Figures 9, 11, 13, column 6, lines 47-64, column 12, lines 47-55, i.e. original documents with copying prevention, data that has been digital signed); and

a second storage portion storing log information (Figures 1 [block 4], 12 [block 4]) related to the input/output of said classified data according to said predetermined input/output procedures (column 3, lines 47-53, column 14, lines 20-25, column 14, lines 39-53, i.e. an access type denoting the type of operation made by the user) and an address representing a storage position of said classified data to be input/output in said first storage portion (column 3, lines 47-

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53, column 14, lines 20-25, column 14, lines 39-53, i.e. a retention device identifier to specify

the retention device used), wherein

said log information includes:

an identification code identifying said classified data to be input/output (column 14, line

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62-65, i.e. file name or file type), and

a first status information representing a state of storage of said classified data to be

input/output in said first storage portion (Figure 13 [block 13], column 14, line 60 to column 15,

line 7).

11. Regarding claim 2, Omata teaches a control portion (Figure 1 [block 8]) controlling the

input/output of said classified data (Figure 1 [block 7]), wherein said control portion operates in

accordance with said predetermined input/output procedures to receive said identification code

and said address of said classified data to be input/output via said interface portion, and to store

said identification code and said address in said second storage portion, and operates in response

to a request externally applied via aid interface portion to determine the state of storage of said

classified data in said first storage portion based on said identification code and said address

stored in said second storage portion, and to renew said first status information based on said

state of storage (column 15, line 13, to column 16, line 25).

12. With regards to claim 3, Omata teaches wherein said log information further includes a

second status information recording a status of progression of said predetermined input/output

procedures relating to the input/output of said classified data to be input/output, and

said control portion renews said second status information in accordance with the progression of said predetermined input/output procedures (column 3, lines 47-53, column 14, lines 20-25, column 14, lines 39-53, i.e. access time denoting the operation time).

13. With regards to claim 4, Omata teaches wherein said log information further includes procedure specifying information specifying said predetermined input/output procedures (column 3, lines 47-53, column 14, lines 20-25, column 14, lines 39-53), and

said control portion renews said procedure specifying information in response to every new obtaining of said procedure specifying information (Figure 13, column 14, line 59 to column 15, line 13, column 17, line 18 to column 18, line 21, i.e. updating file attribute data).

14. With regards to claim 11, Omata teaches wherein said classified data includes said identification code peculiar to said classified data (column 3, lines 47-53, column 14, lines 20-25, column 14, lines 39-53), and

said control portion determines the storage state of said classified data in said first storage portion by specifying said classified data in accordance with said identification code included in said classified data stored in the storage position on said first storage portion specified by said address (Figure 13, column 14, line 59 to column 15, line 13).

 Regarding claim 16, Omata teaches wherein said classified data is a decryption key for decrypting and using encrypted content data (column 15, lines 36-47, i.e. decrypting data), and

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said data storage device further comprises a third storage portion storing (Figure 14 [block 13]) said encrynted content data (Figure 14 [block 40], column 15, lines 29-39).

#### Claim Rejections - 35 USC § 103

- 16. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omata in view of U.S. Patent Application Publication No. 2002/0191764 A1 to Hori et al., hereinafter Hori.
- 18. Concerning claim 5, Omata teaches, wherein in an input procedure included in said predetermined input/output procedures for receiving and storing said classified data (column 16, line 55 to column 18, line 21), and

said control portion receives said address via said interface portion, stores said received address in said second storage portion, and stores said classified data received by said cipher communication portion in a storage position on said first storage portion specified by said received address (column 16, line 55 to column 18, line 21).

- 19. Omata does not teach a cipher communication portion operating in accordance with said predetermined input/output procedures to establish a cipher communication path to a supplier or a receiver of said classified data via said interface portion, and to receive or transmit said classified data via said established cipher communication path and said cipher communication portion receives said classified data in accordance with said input procedure.
- 20. Hori teaches a cipher communication portion operating in accordance with said predetermined input/output procedures to establish a cipher communication path to a supplier or a receiver of said classified data via said interface portion, and to receive or transmit said

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classified data via said established cipher communication path (paragraphs 0012, 0067, 0068) and said cipher communication portion receives said classified data in accordance with said input procedure (paragraph 0012).

- 21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a cipher communication portion operating in accordance with said predetermined input/output procedures to establish a cipher communication path to a supplier or a receiver of said classified data via said interface portion, and to receive or transmit said classified data via said established cipher communication path and said cipher communication portion receives said classified data in accordance with said input procedure, since Hori states at paragraph 0068 that including cipher communication units would only serve to further enhance security.
- Concerning claim 6, Hori discloses wherein in said input procedure, said cipher communication portion produces a first session key (paragraphs 0067, 0068).
- Omata discusses the control portion renews said procedure specifying information
   (Figure 13, column 14, line 59 to column 15, line 13, column 17, line 18 to column 18, line 21).
- 24. Concerning claim 7, Omata discloses a signing portion producing a signed log information prepared by affixing an electronic signature to said log information or a part of said log information (Figures 9, 11, 13 [block 25], 19 [step S67], column 13, lines 37-40);

said control portion renews said first status information included in said log information stored in said second storage portion, obtains said log information from said second storage portion and applies said log information to said signing portion (Figure 13, column 14, line 59 to column 15, line 13, column 17, line 18 to column 18, line 21),

said log information including said renewed first status information to produce said signed log information (Figure 13, column 14, line 59 to column 15, line 13, column 17, line 18 to column 18, line 21).

- 25. Hori teaches the cipher communication portion (paragraphs 0012, 0067, 0068).
- 26. Omata and Hori do not teach in a re-input procedure included in said predetermined input/output procedures for resuming said input procedure when said input procedure is interrupted.
- 27. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in a re-input procedure included in said predetermined input/output procedures for resuming said input procedure when said input procedure is interrupted, since one of ordinary skill in the art could have realized that merely resuming an input procedure requires routine skill in the art and would yield a predictable result, namely completing the input procedure.
- 28. Concerning claim 8, Omata teaches wherein in an output procedure included in said predetermined input/output procedures for externally outputting said classified data stored in said first storage portion (column 18, line 23 to column 19, line 4),

said control portion receives said address via said interface portion, stores said received address in said second storage portion, obtains said classified data from the storage position on

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said first storage portion specified by said received address, and applies said classified data to

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said output portion (column 15, line 13 to column 16, line 25).

29. Hori teaches the cipher communication portion transmits said classified data received

from said control portion in accordance with said output procedure (paragraphs 0012, 0067,

0068, i.e. encrypted communications).

30. Concerning claim 9, Hori teaches wherein in said output procedure, said cipher

communication portion receives an externally produced second session key (paragraphs 0012,

0067, 0068).

31. Omata teaches the control portion renews said procedure specifying information (Figure

13, column 14, line 59 to column 15, line 13, column 17, line 18 to column 18, line 21).

32. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omata.

33. Concerning claim 12, Omata teaches wherein in an input procedure included in said

predetermined input/output procedures for receiving said classified data via said interface portion

and storing said classified data in said first storage portion (column 16, line 55 to column 18, line

21).

34. Omata does not teach said control portion interrupts said input procedure without storing

said classified data in said first storage portion when mismatch occurs between the identification

code included in said received classified data and the identification code included in said log

information.

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35. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the control portion to interrupt said input procedure without storing said classified data in said first storage portion when mismatch occurs between the identification code included in said received classified data and the identification code included in said log information, since one of ordinary skill would recognize that it would only require routine skill in the art to interrupt the input procedure to yield the predictable result of protecting the data and ensure that the data being inputted was not a virus or corrupted. See KSR International Co. v. Teleflex Inc., 82 USPO2d, 1385 (U.S. 2007).

- 36. Concerning claim 13, Omata teaches wherein in an output procedure included in said predetermined input/output procedures for outputting said classified data stored in said first storage portion via said interface portion (column 18, line 23 to column 19, line 4).
- 37. Omata does not teach the control portion interrupts said output procedure without outputting said classified data when the identification code included in said classified data stored in the storage position on said first storage portion specified by said address does not match with the identification code included in said log information.
- 38. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the control portion to interrupt said output procedure without outputting said classified data when the identification code included in said classified data stored in the storage position on said first storage portion specified by said address does not match with the identification code included in said log information, since one of ordinary skill would recognize that it would only require routine skill in the art to interrupt the output procedure to yield the

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predictable result of ensuring that the data being outputted was not transmitted to a user who was not authorized to access said data. See KSR International Co. v. Teleflex Inc., 82 USPQ2d, 1385 (U.S., 2007).

39. With regards to claim 14, Omata teaches a signing portion producing signed data for said log information, and producing signed log information by affixing said produced signed data to said log information (Figures 9, 11, 13 [block 25], 19 [step S67], column 13, lines 37-40);

said control portion outputs said signed log information via said interface portion (Figure 1 [block 37], column 18, line 23 to column 19, line 4).

- 40. Omata does not teach a re-input procedure performed for resuming an input procedure for receiving said classified data via said interface portion and storing said classified data in said first storage portion, when said input procedure is interrupted.
- 41. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a re-input procedure for resuming an input procedure for receiving said classified data via said interface portion and storing said classified data in said first storage portion, when said input procedure is interrupted, since one of ordinary skill would recognize that it would only require routine skill in the art to restart the interrupted input procedure to yield the predictable result of protecting the data and ensure that the data being inputted was not a virus or corrupted. See KSR International Co. v. Teleflex Inc., 82 USPQ2d, 1385 (U.S. 2007).

#### Double Patenting

42. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). Sec, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re T\*\*\*ngton, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

- 43. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
- Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).
- 45. Claims 1-16 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-9 of copending Application No. 10/522,176. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

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46. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows (related subject matter shown as **bold**):

#### Claims 1 and 2 of instant application

Claim 1 of Application No. 10/522,176

 A data storage device performing input/output of classified data in accordance with predetermined input/output procedures for protection of said classified data, and storing said classified data, comprising:

an interface portion externally exchanging data;

a first storage portion storing said classified data; and

- a second storage portion storing log information related to the input/output of said classified data according to said predetermined input/output procedures and an address representing a storage position of said classified data to be input/output in said first storage portion,
- (2.) a control portion controlling the input/output of said classified data, wherein said log information includes:

an identification code identifying said classified data to be input/output, and

a first status information representing a state of storage of said classified data to be input/output in said first storage portion; and said control portion operates in accordance with said predetermined input/output procedures to receive said identification code and said address of said classified data to be input/output via said interface portion, and to store said identification code and said address in said second storage portion, and operates in response to a request externally applied via aid

 A data storage device for performing input/output of classified data in accordance with a constant procedure, storing said classified data, and operating to store history information or update at appropriate timing said history information in accordance with said constant procedure, comprising:

an interface performing external input/output of data;

a data storage portion storing said plurality of classified data;

a log storage portion storing a plurality of items of the history information relating to the input/output of said classified data; and

a control portion controlling the input/output of said classified data, wherein said log storage portion is provided as a

said log storage portion is provided as a ring buffer circulatively utilizing two or more regions each storing one item of said history information,

each of the plurality of items of said history information stored in said log storage portion includes identification information identifying the classified data storing the history information and being to be input/output, and

said control portion receives the identification information identifying the classified data to be input/output in accordance with start of input/output processing of said classified data, searches a plurality of regions in said log storage portion in a predetermined order, determines the region storing the earliest

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interface portion to determine the state of storage of said classified data in said first storage portion based on said identification code and said address stored in said second

storage portion, and to renew said first status

information based on said state of storage.

Claims 1 and 2 of instant application

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item of the history information stored in said log storage portion as the earliest region, and newly stores the history information relating to the input/output processing of said classified data including said received identification information in the determined earliest region.

Claim 1 of Application No. 10/3/0 832

- 47. Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP
- 48. Claims 1-16 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-15 of copending Application No. 10/340,832. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.
- 49. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows (related subject matter shown as **bold**):

Claims 1 and 2 of instant application	Claim 1 of Application No. 10/340,832		
A data storage device performing	1. A storage apparatus to input/output		
input/output of classified data in accordance	classified data according to a predetermined		
with predetermined input/output procedures for	procedure, and storing said classified data,		
protection of said classified	comprising:		
data, and storing said classified data,	an interface for data input/output with an		
comprising:	external source,		
an interface portion externally	a data storage unit storing said classified data,		
exchanging data;			
a first storage portion storing said	′		
classified data; and	a plurality of log storage units storing		

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a second storage portion storing log information related to the input/output of said classified data according to said predetermined input/output procedures and an address representing a storage position of said classified data to be input/output in said first storage portion,

(2.) a control portion controlling the input/output of said classified data, wherein said log information includes:

# an identification code identifying said classified data to be input/output, and

a first status information representing a state of storage of said classified data to be input/output in said first storage portion; and said control portion operates in accordance with said predetermined input/output procedures to receive said identification code and said address of said classified data to be input/output via said interface portion, and to store said identification code and said address in said second storage portion, and operates in response to a request externally applied via aid interface portion to determine the state of storage of said classified data in said first storage portion based on said identification code and said address stored in said second storage portion, and to renew said first status information based on said state of storage.

history information associated with input/output of said classified data, and

a control unit controlling input/output of said classified data,

each of the plurality of history information stored in said plurality of log storage units including identification information to identify classified data,

wherein said control unit receives via said interface said identification information identifying classified data that has become a subject of input/output in response to commencement of an input/output process of said classified data, selects a log storage unit that stores history information including said received identification information out from said plurality of log storage units when there is such a log storage unit, and stores history information according to a progress of a procedure for said classified data input/output into said selected log storage unit.

50. Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

#### Allowable Subject Matter

51. The following is a statement of reasons for the indication of allowable subject matter:

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Both claims 10 and 15 contain log certifying portions used to certify and verify data.

After an extensive search the Examiner has been unable to find any prior art teachings of a log certifying portion in combination with the monitoring of protected data being inputted and outputted from a data storage device as claimed by the Applicant that would anticipate or render obvious the claimed invention. Therefore, claims 10 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Conclusion

- THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
- 53. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
- 54. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian LaForgia whose telephone number is (571)272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.

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55. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kristine L. Kincaid can be reached on (571) 272-4063. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

56. Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christian LaForgia/ Primary Examiner, Art Unit 2139

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